

Par. Apl. S/N 09/607,786
Resp. To OA Mailed 3/25/04

REMARKS

1. Claims 1-35 were pending. Claims 1, 8-10, 12, 20, and 27-28 have been amended. No claims have been added. Claims 7 and 24 have been canceled without prejudice to the filing of same in one or more continuation applications. No new matter has been added. Claims 1-6, 8-23, and 25-35 are now pending. Reexamination and reconsideration of the application, as amended, are requested.

2. The specification was amended to correct for inadvertent typographical errors.

3. Rejections under 35 U.S.C. §102(e) and 35 U.S.C. §103(a)

Claims 1-6, 14-21, 25-30, 32 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Ramaswamy et al. (U.S. Patent No. 6,188,976 filed Oct. 23, 1998). Claims 7-13, 22-24, 31, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramaswamy et al in view of Bangalore et al. (U.S. Patent No. 6,317,707 filed Dec. 7,1998). The Applicants respectfully traverse and request consideration of the following.

The Office Action, at pages 7-8 in paragraph no. 4 admits that Ramaswamy et al. do not teach the limitations of claim 7, namely:

“clustering every N-items of the received corpus into a training unit, wherein resultant training units are separated by gaps;
calculating the similarity within a sequence of training chunks on either side of each of the gaps;
selecting segment boundaries that maximize intra-segment similarity and inter-segment disparity; * * *.”

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The foregoing limitations include the positive recitation of the manipulative step "selecting segment boundaries that maximize intra-segment similarity and inter-segment disparity". Each of the pending independent claims 1, 20, and 28 have been amended to positively recite this manipulative step.

The Office Action sets forth in paragraph no. 4 that:

"as is well known in the art, Bangalore et al. teaches calculating the similarity within a sequence of training chunks (C.3.lines 15-18, 22, 23-the calculated radius determines the similarity) and selecting segment boundaries that maximize intra-segment similarity and inter-segment disparity (C.3.lines 15, 16-the radius indicates the selected boundaries and compactness maximizes segment similarity and inter-segment disparity). Therefore, it would have been obvious at the time of the invention to combine Ramaswamy et al. with Bangalore et al. The motivation for doing so would have been to incorporate a well known clustering method of training data/chunks to group similar items and diverge dissimilar items.

The referenced teaching in Bangalore et al. at C.3.lines 15-23, and the context therefore at C.3 lines 24-30 are as follows:

As is known, a cluster may be represented in an N-dimensional frequency space by a centroid coordinate and a radius indicating the volume of the cluster. The radius indicates the "compactness" of the elements within a cluster. Where a cluster has a small radius, it indicates that the elements therein exhibit a very close relationship to each other in the frequency space. A larger radius indicates less similarities between elements in the frequency space.

The similarity between two words may be measured using the Manhattan distance metric between their feature vectors. Manhattan distance is based on the sum of the absolute value of the differences among the vector's coordinates. Alternatively, Euclidean and maximum metrics may be used to measure distances. Experimentally, the Manhattan distance metric was shown to provide better results than the Euclidean or maximum distance metrics.

A reading of the above quoted portion of Bangalore et al. instructs the relevant audience to measure a radius to indicate "compactness" of elements within a cluster. Bangalore et al., however, do not teach the relevant audience to positively undertake the

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manipulative step of "selecting segment boundaries that maximize intra-segment similarity and inter-segment disparity" as recited in each of the independent claims as amended. Accordingly, the Office Action mischaracterizes Bangalore et al. as teaching this manipulative step which the Office Action admits that Ramaswamy et al. do not teach.

The Applicants respectfully submit that the obviousness rejection fails to give proper weight to the above-discussed limitations, especially since these limitations are missing from the prior art of record. Moreover, these assertions of obviousness are not otherwise supported by way of prior art citation, stated scientific theory, basis for common knowledge in the art, or cited legal precedent. In absence of support, the Applicants respectfully submit a demand for evidence, such as a citation of a reference in support of limitations shown to be missing from the applied art.

Given the foregoing, the application of Ramaswamy et al. in view of Bangalore et al. to reject the independent claims, as amended, is improper. Applicants respectfully request withdrawn of the rejections under 35 U.S.C. §102(e) and under 35 U.S.C. §103(a). Applicants respectfully submit that each independent claim, as amended, is allowable, as are claims respectively dependent there from.

4. Conclusion

The Applicant respectfully maintains that the present application is in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance of Claims 1-6, 8-23, and 25-35 at an early date is solicited. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that could be

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clarified by a telephonic interview, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

Dated this 22 day of May, 2004.

Respectfully submitted,



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